بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

Ligaments:-

A short band of tough, flexible fibrous connective tissue which connects two bones or cartilages or holds together a joint.

Joint capsule

A joint capsule is a water tite sac that surrounds the joint. It seals the joint space, provides passive stability by limiting movements, provides active stability via its proprioceptive nerve endings and may form articular surfaces for the joint.

LIGAMENTS OF SHOULDER JOINT

THERE ARE FIVE LIGAMENTS PRESENT IN SHOULDER JOINT.

1) GLENOHUMERAL LIGAMENTS
2) CORACO-ACROMIAL LIGAMENT
3) CORACO-CLAVICULAR LIGAMENTS
4) CORACOHUMERAL LIGAMENT
5) TRANSVERSE HUMERAL LIGAMENT

Glenohumeral Ligaments

- These are a group of three ligaments that attach the humerus (upper arm bone) to the glenoid fossa of the scapula (shoulder blade). They are the superior, middle, and inferior glenohumeral ligaments.

coraco-acromial ligament

- The coracoacromial ligament is a strong triangular band, extending between the coracoid process and the acromion. It is attached, by its apex, to the summit of the acromion just in front of the articular surface for the clavicle; and by its broad base to the whole length of the lateral border of the coracoid process.

coraco-clavicular ligaments

- These two ligaments (trapezoid and conoid ligaments) attach the clavicle coracoid process of the scapula. These tiny ligaments (with the acomioclavicular joint) play an important role in keeping the scapula attached to the clavicle and thus keeping your shoulder 'square'. They carry a massive load and are extremely strong.

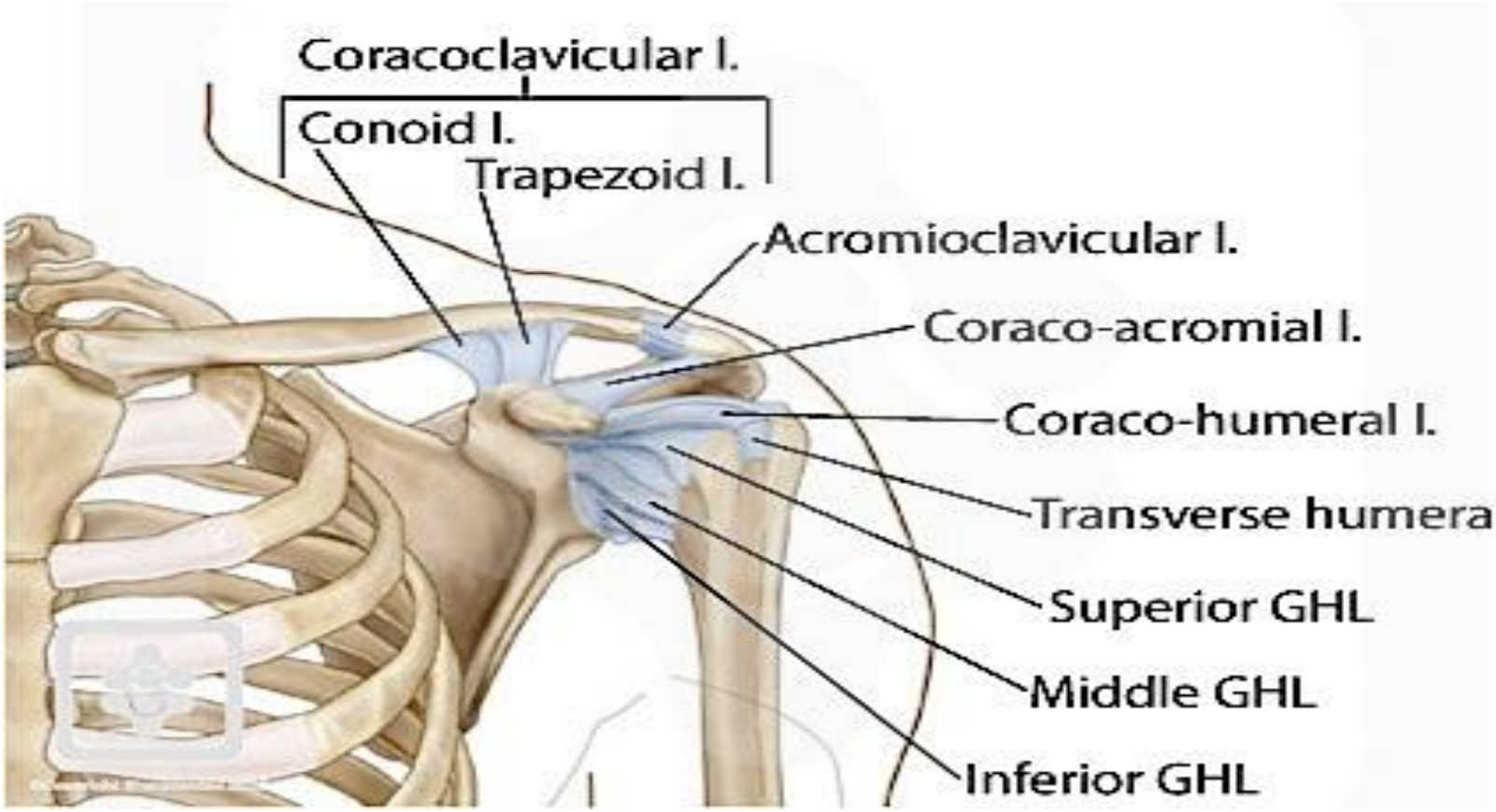
Coracohumeral Ligament

- This ligament connects the coracoid process of the scapula to the greater tubercle of the humerus.

Transverse Humeral Ligament

- : This ligament runs over the top of the bicipital groove, holding the long head of the biceps tendon in place.

Demonstrartion of shoulder joint Ligaments



LIGAMENTS OF HIP JOINT

1. **Ischiofemoral ligament**
2. **Iliofemoral ligament**
3. **Pubofemoral ligament**
4. **Transvrse Acetabulr L.**
   5.Ligamentumm Teres

pelvis

1.Ilio-fumeoral Ligament

- This is a Y-shaped ligament that connects the pelvis to the femoral head at the front of the joint.

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This is the strongest and most important hip capsular ligament, located anteriorly and originating from just below the anterior inferior iliac spine (AIIS). It consists of two limbs: the medial limb is vertically oriented, while the lateral arm is oriented more obliquely.

2.Ischio-Femoral Ligament

It attaches to the posterior surface of the acetabular rim and labrum and courses circumferentially around the joint to its insertion on the anterior aspect of femur .It consists of a triangular band of strong fibers on the posterior side of the hip joint.

3.Pubo-femoral Ligament

- It is located on the inferior side of the hip joint. This ligament is attached, above, to the obturator crest and the superior ramus of the pubis; below, it blends with the capsule and with the deep surface of the vertical band of the iliofemoral ligament. This ligament prevents hyper-abduction of the hip joint.

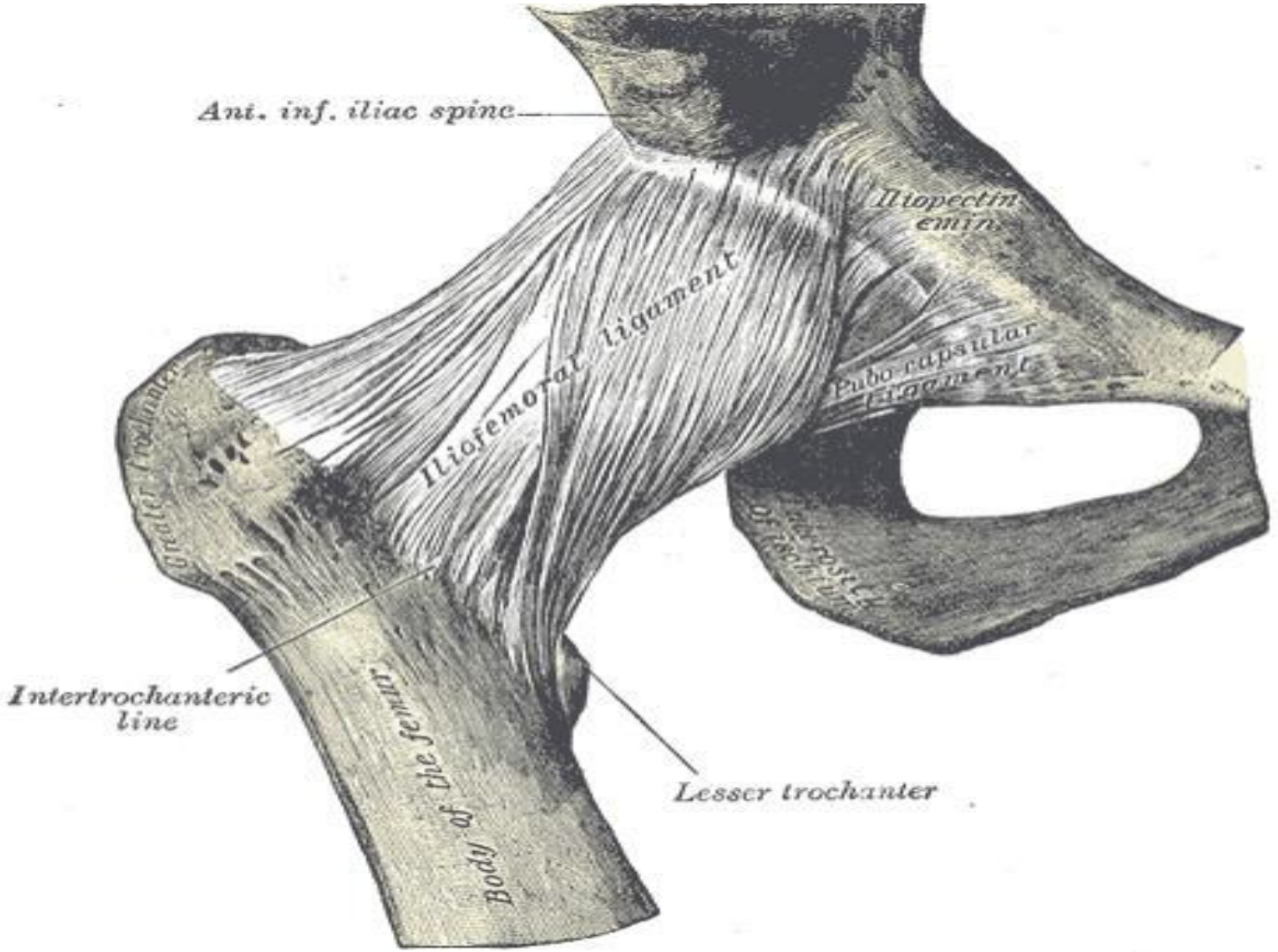
4.Transverse Acetabular Ligament

It consists of strong, flattened fibers, which cross the acetabular notch, and convert it into a foramen through which the nutrient vessels enter the joint. It is an intra-articular structure of the hip.Actually it is a strong load-bearing structure and, in the normal hip, in association with the labrum, provides part of the load-bearing surface for the femoral head.

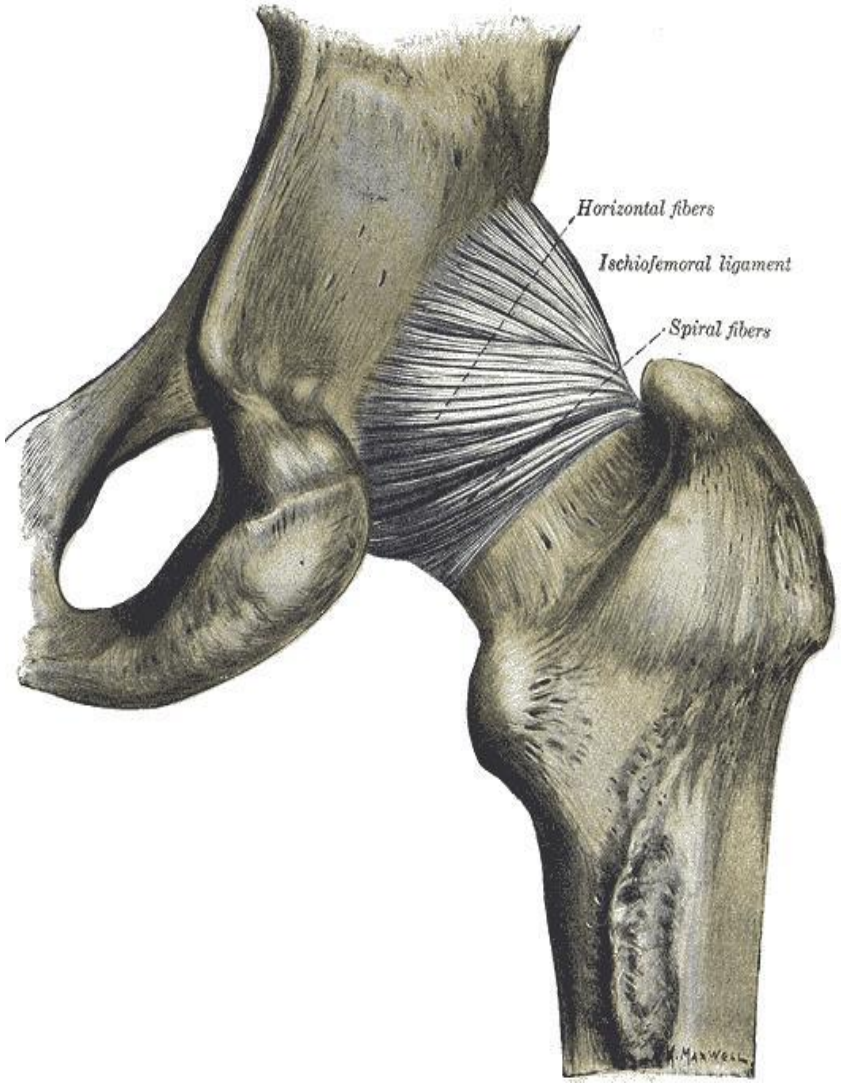
5.Ligamentum Teres

- The ligament of the head of the femur (round ligament of the femur, ligamentum teres femoris, the foveal ligament, or Fillmore's ligament) is a ligament located in the hip. It is triangular in shape and somewhat flattened. The ligament is implanted by its apex into the antero-superior part of the fovea capitis femoris and its base is attached by two bands, one into either side of the acetabular notch, and between these bony attachments it blends with the transverse ligament.

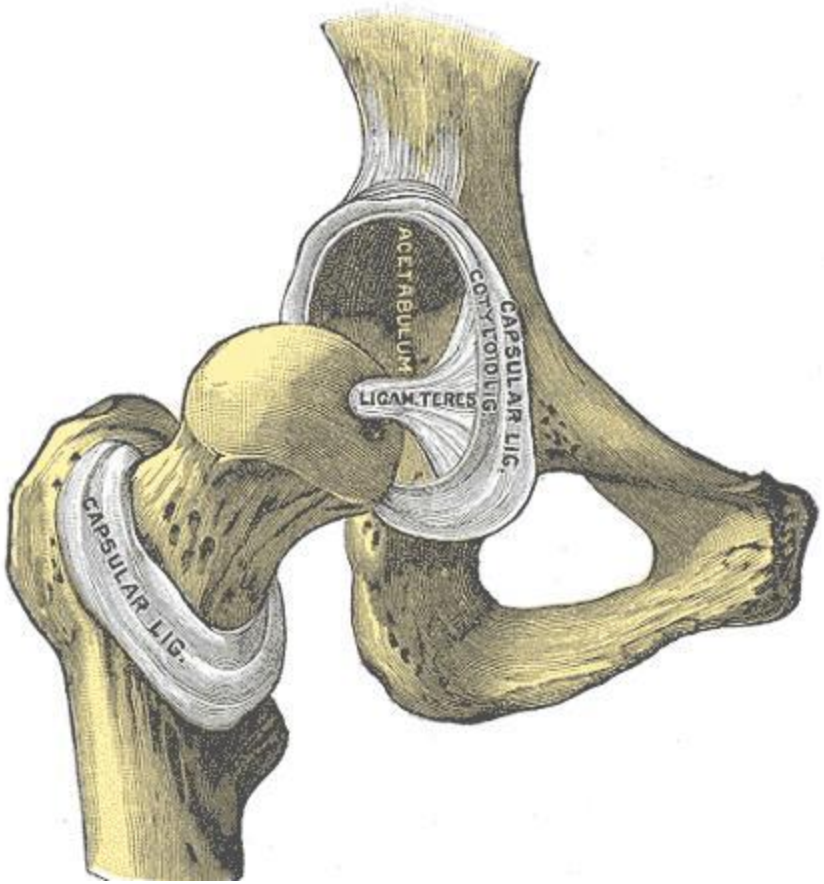
Ilio+pubo femoral ligaments Fig.



Ischio-femoral Lig.Fig.



Ligamentum Teres Fig.



- Comparison of ligaments between Horse and ox and Dog

Here is a comparative table of the ligaments of the shoulder and hip joints in horses, oxen, and dogs:

	Horse	Ox	Dog
Shoulder Joint			
- Coracohumeral ligament	Present	Present	Present
- Supraspinous ligament	Present	Absent	Present
- Infraspinous ligament	Present	Absent	Present
- Glenohumeral ligament	Weak	Weak	Strong
Hip Joint			
- Iliofemoral ligament	Strong	Strong	Strong
- Pubofemoral ligament	Strong	Strong	Weak
- Ischiofemoral ligament	Strong	Strong	Weak

Note: This table is not an exhaustive list of all the ligaments in the shoulder and hip joints of horses, oxen, and dogs, but only a comparison of some of the major ligaments.